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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,425	07/10/2001	Hans-Stephan Albrecht	LMPY-12910	8935

7590 01/13/2004

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EXAMINER	
VY, HUNG T	

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,425	ALBRECHT ET AL.	
	Examin r	Art Unit	
	Hung T Vy	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *15 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

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TECHNOLOGY CENTER 2800

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. In response to the amendment filed on 12/15/2003, claims 1-19 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

Claims 1-14 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Everage et al., U.S. patent No. 6,078,599.

Regarding claims 1-9, Everage et al. discloses a compensating optical drift of a wavelength measurement system, comprising the steps of:

(a) operating the laser system including generating a laser beam (38) and directing a beam portion through the wavelength measurement system (40)(Fig 4);

(b) Calibrating the wavelength measurement system to an absolute reference (42), further, fig 2, 3 show on graph show the negative value and positive value, in order to perform this function, they should have absolute reference;

(c) Determining the wavelength (42) of the laser beam, said wavelength determining step comprising the steps of:

(i) transmitting wavelength information measured by said wavelength measurement system;

(ii) retrieving a drift compensation value stored as corresponding to a current laser system operating condition; and

(iii) calculating the wavelength of the laser beam based on the transmitted wavelength information and the retrieved drift compensation value (See fig. 6) ; and

(c) tuning (See column 2, line 62-65) the output beam to a target (40) wavelength using the wavelength measurement system (See fig 4);

(d) detecting a measured wavelength of the output beam using the wavelength measurement system after a predetermined period of laser operation (See fig. 4, 42 is computer system so the computer will predetermined period of laser operation).

(e) calculating a compensated wavelength by figuring in a previously determined drift compensation value(See fig. 5 and 6); and

(f) adjusting the wavelength of the laser beam to the target wavelength when the compensated wavelength differs from the target wavelength (See 4, 5 and 6).

Regarding claims 10-14, Everage et al. discloses the wavelength measurement system comprises a monitor etalon (See column 1, line 18-32), the drift compensation values are determined by comparing wavelength values determined using the monitor etalon with values determined using a calibrated spectrometer (it is inherent that the computer 46 and 40) in a test run. It is inherent that the drift compensation values are tabulated with each entry in a table corresponding to a drift compensation value at a different amount of laser operation for a give set of laser operation conditions because Everage et al disclose the computer system (46) and laser wavelength detection device (40).

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth insection 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15-19 rejected under 35 U.S.C. 103 (a) as being unpatentable over Everage et al., U.S. patent No. 6,078,599 in view of Myers et al., U.S. Patent No. 6,128,323.

Regarding claims 15-19, the methods of compensating optical are considered as apparatus by process steps. Therefore, Everage et al. disclose a compensating optical

drift of a wavelength measurement system, wherein different tables are generated corresponding to differing values of laser operation conditions (in computer system and laser wavelength detection device) but Everge et al. do not disclose the amount of laser operation is measured versus a parameter that generally increases as the laser operates, wherein that parameter is selected from the group of parameters consisting of as time, pulse count, input energy to the discharge, and total output energy and at least one condition selected from the group of conditions consisting of repetition rate, burst rate, output power, optical arrangement, discharge conditions, gas mixture composition, gas mixture age, age of laser chamber and age of resonator optics. However, Mysers et al. disclose parameters consisting as time, pulse count (See column 11, line 60), and gas mixture composition (See column 17, line 6-22)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify to have a parameter that generally increases as the laser operates because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention. It would have been obvious to provide Everage et al. with the limitation as taught and suggested by Myers et al.

4. Claims 1-19 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Das et al., U.S. patent No. 5,835,520.

Regarding claims 1-19, Das et al. discloses a compensating optical drift of a wavelength measurement system, comprising the steps of:

(a) operating the laser system (2) including generating a laser beam and directing a beam portion through the wavelength measurement system (Fig 1,6, and 8);

(b) Calibrating the wavelength measurement system to an absolute reference (See column 6, line 23-33)

(c) tuning (See column 6, line 10-23) the output beam to a target wavelength using the wavelength measurement system (See fig 1,6, and 8);

(d) detecting a measured wavelength of the output beam using the wavelength measurement system after a predetermined period of laser operation (See column 5, line 13-25).

(e) calculating a compensated wavelength by figuring in a previously determined drift compensation value(See column 6, line 19-22); and

(f) adjusting the wavelength of the laser beam to the target wavelength when the compensated wavelength differs from the target wavelength (See 1,6 and 8).

Response to Arguments

5. Applicant's arguments filed on 07/27/2003 have been fully considered but they are not persuasive. Applicant made the following arguments:

a. "Everge et al. 3:58-4:15. As is shown by the above passage from Everage, as well as from numerous other passages, it appears that there is no recognition of the problem that the performance of the detection device can drift overtime " page 8 first fifth paragraph.

In response to Applicant's argument a above, the applicant's argument is not persuasive because Everage et al. discloses the performance of the detection device can drift overtime (see column 1, line 13-16 or figs. 1-3). Further, Everage et al. discloses a drift of the measurement system, which should be accounted for in operation of the laser system (See fig. 1-3).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (571) 272-1941. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Hung T. Vy
Art Unit 2828
January 5, 2004